

=> d his

(FILE 'HOME' ENTERED AT 13:31:43 ON 15 JUN 2005)

FILE 'CA' ENTERED AT 13:31:50 ON 15 JUN 2005

L1 3289 S DIELECTRO?  
L2 2314 S L1 NOT DIELECTROP?  
L3 420 S DIELECTROM? OR DIELECTROS?  
L4 166 S L3 AND(CHEMICAL OR CURE OR DRUG OR MONITOR OR CAFFEINE OR SEMEN OR  
PROTEIN OR SIMPLE OR ANALYTICAL CHEMISTRY OR BIO? OR CANCER? OR  
TUMOR? OR MALIGN?)  
L5 58 S L3 AND(DRUG OR SEMEN OR PROTEIN OR SIMPLE OR BIO? OR CANCER? OR  
TUMOR? OR MALIGN?)

=> d bib,ab 15 1-58

L5 ANSWER 14 OF 58 CA COPYRIGHT 2005 ACS on STN  
AN 128:1306 CA  
TI The temperature dependence of fibrinogen molecule conformational state  
AU Berest, V. P.; Gatash, S. V.  
CS Radiophysics Department, Chair of Molecular and Applied Biophysics,  
Kharkov State University, Kharkov, 310077, Ukraine  
SO Spectroscopy of Biological Molecules: Modern Trends, [European  
Conference on Spectroscopy of Biological Molecules], 7th, Madrid, 1997  
(1997), 37-38. Editor(s): Carmona, Pedro; Navarro, Raquel; Hernanz,  
Antonio. Publisher: Kluwer, Dordrecht, Neth.  
AB The conformational dynamics of fibrinogen under physiol. conditions was  
studied by observing the effect of temp. (4-50° C) on bovine fibrinogen  
in 0.15 M NaCl soln. (ph 7.2) using UV-spectroscopy and SHE-  
**dielectrometry** methods. Changes in the intensity of the max. 281 nm in  
deriv. spectra of the fibrinogen soln. occurred in the interval 8-12° C  
and above 35° C, indicating a change in the state of the fibrinogen mol.  
groups situated mainly near the mol. surface. SHF-**dielectrometry**  
indicated a change in the water state of the fibrinogen.

L5 ANSWER 18 OF 58 CA COPYRIGHT 2005 ACS on STN  
AN 123:288091 CA  
TI Dielectric analysis of an epoxy resin during crosslinking  
AU Butta, E.; Livi, A.; Levita, G.; Rolla, P. A.  
CS Dep. Chem. Eng., Industrial Chem. Mater. Sci., Pisa, 56126, Italy  
SO Journal of Polymer Science, Part B: Polymer Physics (1995), 33(16),  
2253-61  
AB The dielec. behavior of an epoxide/ethylenediamine formulation was  
studied during crosslinking in the frequency range 103-1010 Hz at 25°  
and 70°. Dielec. data were collected both in the frequency and in the  
time domains and analyzed in terms of a combination of 2 Havriliak-  
Negami functions. A complete description of the evolution of the  
relaxation parameters during the reaction was obtained. The nature of  
the information yielded by **dielectrometry** on the dynamics of the system  
is discussed. A **simple** model (i.e., disappearance of dipoles in the  
exptl. window), is proposed which agrees with the exptl. evidence  
accumulated so far.

L5 ANSWER 21 OF 58 CA COPYRIGHT 2005 ACS on STN  
AN 122:32114 CA

TI **Dielectrometry** of growing macromolecular acrylic systems  
 AU Carlini, C.; Livi, A.; Rolla, P. A.  
 CS Dip. Chim. Ind. Mater., Univ. Bologna, Bologna, 40136, Italy  
 SO Materials Engineering (Modena, Italy) (1993), 4(2), 337-43  
 AB The dielec. behavior of Bu acrylate undergoing a polymn. reaction is discussed by analyzing the exptl. data obtained by microwave irradiation at 0.3-20 GHz. The anal. reveals that the system can be modeled by a **simple** superimposition of two relaxation processes, related to the monomer and polymer resp., whose mean relaxation times are sep'd. by ~2 decades. The dielec. behavior of the system can be used to design a procedure to monitor polymn. kinetics.

L5 ANSWER 24 OF 58 CA COPYRIGHT 2005 ACS on STN  
 AN 121:75421 CA  
 TI Portable instrumentation: new weapons in the war against **drugs** and terrorism  
 AU Fetterolf, Dean D.; Donnelly, Brian; Lasswell, Lynn D.  
 CS FBI Lab., FBI Acad., Quantico, VA, 22135, USA  
 SO Proceedings of SPIE-The International Society for Optical Engineering (1994), 2092(Substance Detection Systems), 40-52  
 AB A review with 20 refs. The FBI Lab. has been involved in the development of new technol. and in the innovative adaptation of existing technol. for use in the war on **drugs** and terrorism. In the last 2 yr the Lab. has introduced 5 new tools into the FBI agent's technol. arsenal for use in support of these investigations. The portable, **simple** to operate instrumentation includes a hand-held microwave **dielectrometer**, portable gas chromatograph (GC), gas chromatograph/mass spectrometer (GC/MS), ion mobility spectrometer (IMS), and antibody-based field test kits. Real world application of this new technol. included detection of cocaine dissolved in 45 of 36,000 bottles of a beverage and cocaine molded in plastic fittings. Trace phys. evidence from explosives can also be detected on hands and surfaces.

L5 ANSWER 26 OF 58 CA COPYRIGHT 2005 ACS on STN  
 AN 120:32102 CA  
 TI Dielectric behavior at microwave frequencies of an epoxy resin during crosslinking  
 AU Livi, A.; Levita, G.; Rolla, P. A.  
 CS Dep. Chem. Eng. Ind. Chem. Mater. Sci., Pisa, 56126, Italy  
 SO Journal of Applied Polymer Science (1993), 50(9), 1583-90  
 AB The dielec. behavior during the crosslinking process of a low-mol.-wt. liq. diglycidyl ether of bisphenol-A and ethylenediamine, as the curing agent, was investigated at microwave frequencies (0.1-10 GHz) by time-domain reflectometry. Both the real and the imaginary part of the dielec. const., which regularly decreased as the cure reaction proceeded, were mainly affected by the disappearance of specific dipolar species, whose relaxation times did not change significantly. A **simple** model based on disappearance of dipoles agrees with the exptl. data and explains the coincidence between kinetic data obtained by **dielectrometry** and calorimetry. The microwave dielec. const. can thus be used to directly measure in real time the conversion of the reaction.

L5 ANSWER 35 OF 58 CA COPYRIGHT 2005 ACS on STN

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AN 106:188372 CA  
TI Individualizing **drug** selection  
AU Malaya, L. T.; Shchegoleva, T. Yu.; Bakhova, L. K.; Kovalevskaya, O. S.  
CS Khar'k. Fil., Kiev. Nauchno-Issled. Inst. Kardiol., Kharkov, USSR  
SO Farmakologiya i Toksikologiya (Moscow) (1987), 50(2), 39-42  
LA Russian  
AB By means of superhigh-frequency **dielectrometry** it is possible to det.  
the response of erythrocyte adenylate cyclase [9012-42-4] to  
adrenoblockers such as dihydroergotamine [511-12-6], obsidan [318-98-9],  
cordarone [19774-82-4], and isoptin. Differences in erythrocyte  
responses correlate with side effects developing after administration of  
the **drugs** to healthy humans and patients with cardiovascular pathol.,  
and may be of value in deciding which **drug** to prescribe for particular  
patients.

=> log y

STN INTERNATIONAL LOGOFF AT 13:50:22 ON 15 JUN 2005

=> d his

(FILE 'HOME' ENTERED AT 12:58:37 ON 15 JUN 2005)  
FILE 'CA' ENTERED AT 12:59:27 ON 15 JUN 2005  
L1 35585 S RADIOWAVE OR RADIO(1A) (WAVE OR FREQUENCY OR RF OR MEGAHERTZ OR  
MEGA HERTZ OR MHZ)  
L2 153 S L1(8A) COHEREN?  
L3 26 S L1(7A) (TUMOR? OR CANCER? OR MALIGN?)  
L4 3 S L2 AND (PROGRAMMED OR DIELECTROM? OR FLOW VELOCITY)  
L5 29 S L3-4

=> d bib,ab 1-29 15

L5 ANSWER 21 OF 29 CA COPYRIGHT 2005 ACS on STN  
AN 122:269828 CA  
TI Derivation of fluid transport properties in porous media from NMR **flow velocity** spectrum measurements  
IN Thomann, Hans; Jerosch-Herold, Michael  
PA Exxon Research and Engineering Co., USA  
SO Brit. UK Pat. Appl., 29 pp.  
PI GB 2279754 A1 19950111 GB 1994-12464 19940621  
US 5428291 A 19950627 US 1993-86392 19930701  
PRAI US 1993-86392 A 19930701  
AB A method for obtaining fluid transport properties of a porous material  
under steady flow conditions comprises the following steps: (1) satg.  
the porous material with a fluid and imposing a pressure gradient to  
induce flow, (2) applying a **radio frequency** pulses leading to a **coherent**  
precession of nuclear fluid spins corresponding to the Larmor  
frequencies, (3) applying magnetic field gradients to encode  
displacement of fluid mols. during a well-defined time interval ( $\Delta$ ),  
(4) measuring the probability distribution of displacements during  $\Delta$ ,  
and (5) detg. the fluid transport properties from the probability  
distribution of the fluid displacements. The method is esp. useful for  
detg. the effective porosity and tortuosity of oil-bearing rocks and in  
modeling of petroleum reservoirs. Conventional magnetic field imaging

gradients may be applied in addn. to the flow encoding gradients.

L5 ANSWER 27 OF 29 CA COPYRIGHT 2005 ACS on STN

AN 91:26112 CA

TI **Radio frequency dielectrometry** of cement pastes. **Coherent** molecular relaxation processes of thixotropic cement pastes

AU Rozental, O. M.; Fedingin, E. I.

CS Sverdl. Pedagog. Inst., Sverdlovsk, USSR

SO Kolloidnyi Zhurnal (1979), 41(1), 171-5

LA Russian

AB The portland cement pastes exhibit charged Brownian particles with a redistribution of coupled charges. The dielec. const. ( $\epsilon$ ) and elec. cond. ( $\chi$ ) were detd. at 5-100 MHz frequencies for pastes obtained from C4AF, C3A, C2F, etc. During the development of the thixotropic state, the  $\epsilon$  increased in the radio-frequency range. The cement gels have high-order multiple-field elec. structure. The paraelec. properties of the multiple field are detd. by a decrease in this order during the application of an external elec. field. The mol. relaxation process are coherent.

=> log y

STN INTERNATIONAL LOGOFF AT 13:17:00 ON 15 JUN 2005